ORDER NO. TD93010444C2

5540

Service Manual

Mini Cassette

RQ-L340

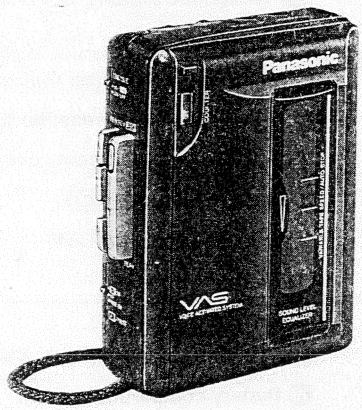
Mini Cassette Recorder

Colour

(K)..... Black Type

Area

Suffix for Model No.	Areas	Colour
[E]	Europe	(K)



■ SPECIFICATIONS

Power Requirement:	Battery; 3V (two "AA" size, R6/LR6 batteries) AC; with optional Panasonic AC adaptor RP-AC31
Motor:	Electric governor motor
Power Output:	400mW (R.M.S. max)
Frequency Response:	180~6,000Hz (Normal)
Recording System:	AC bias, Magnet erase
Tape Speed:	4.8cm/s
Monitor System:	Variable
Program Time:	1 hour with C-60 cassette tape
Jack; Input:	DC IN; 3V (⊖-C-⊕) MIC; 0.25mV (150-600Ω)
Output:	MONITOR; 8Ω, φ3.5
Speaker:	4.5cm PM dynamic speaker (8Ω)
Dimensions:	115.3(W)×88(H)×35(D)mm
Weight:	218g without batteries
Track System:	2-track monaural recording and playback

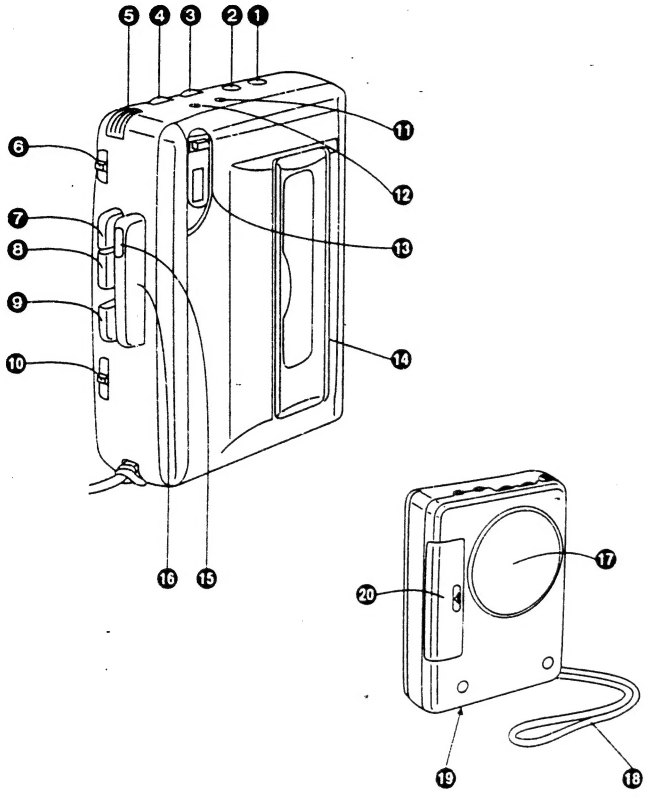
Notes:

1. Weights and dimensions shown are approximate.
2. Design and specifications are subject to change without notice.

Panasonic

5540

■ LOCATION OF CONTROLS



❶ Monitor jack [MONITOR (8Ω)]
❷ Microphone jack (MIC) 0.25mV, 200~600Ω
❸ Volume/VAS level control (VOLUME/VAS LEVEL)
❹ Tape speed control (TAPE SPEED)
❺ Built-in microphone (MIC)
❻ Tone/sound level equalizer switch (TONE/SLE)
❼ Rewind/review button (REW/REV)
❽ Fast forward/cue button (FF/CUE)
❾ Stop button (STOP)
❿ VAS/pause switch (VAS/PAUSE)
⓫ Recording/battery check indicator (REC/BATT)
⓬ Sound level equalizer indicator (SLE)
⓭ Tape counter and reset button (COUNTER)
⓮ Cassette compartment cover
⓯ Record button (REC)
⓰ Playback button (PLAY)
⓱ Speaker (4.5 cm, 8Ω)
⓲ Hand strap
⓳ DC input jack (DC IN 3 V ⊖-⊂-⊕) [Bottom]
⓴ Battery compartment cover

■ DISASSEMBLY INSTRUCTIONS

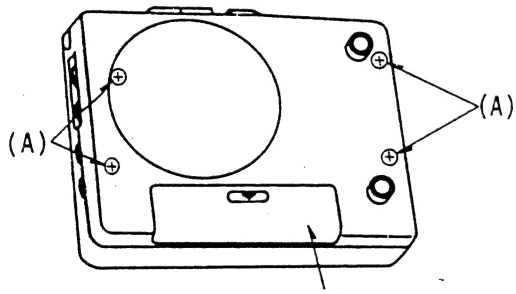


Fig. 1

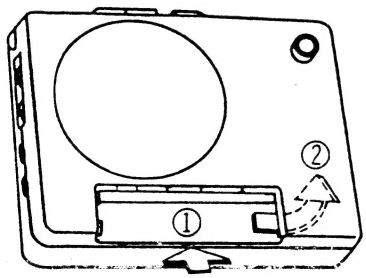


Fig. 2

●Removal of the Rear Cabinet

1. Remove the screws (A) (2×10)mm×4
2. Open the battery cover (B)×1
3. Remove the rear cabint in the direction of arrow①&②.

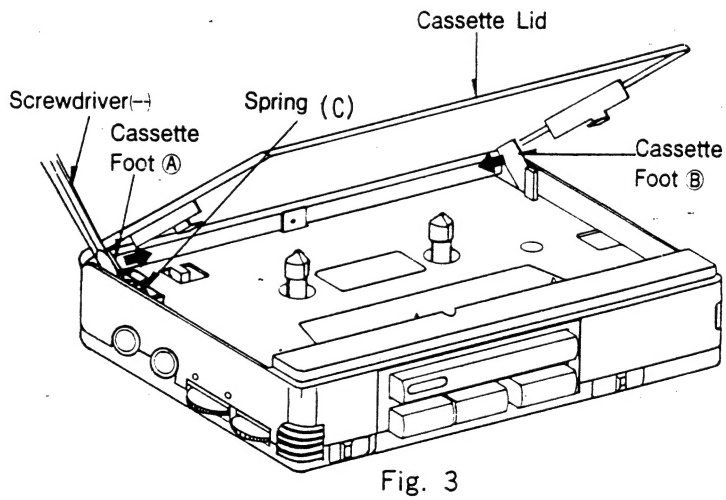


Fig. 3

●How to Removal of the Cassette Lid

Note: Be careful not to break cassette foots Ⓐ and Ⓑ when removing the cassette lid.

1. Open the cassette lid.
2. With a screwdriver, push cassette foot Ⓐ to the right as shown in Fig. 3, and then pull out the right side of the cassette lid.
3. Push cassette foot Ⓑ to the left and then pull out the cassette lid.
4. Remove the spring. (C)×1.

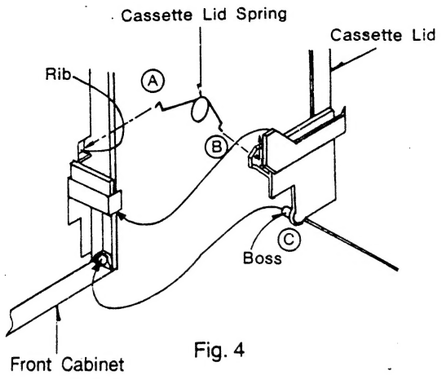


Fig. 4

●How to Replace the Cassette Lid Spring

1. Fit Part Ⓐ on the rib of the front cabinet.
2. Insert part Ⓑ in the hole in the cassette lid.
3. Fit the boss Ⓒ in the front cabinet.

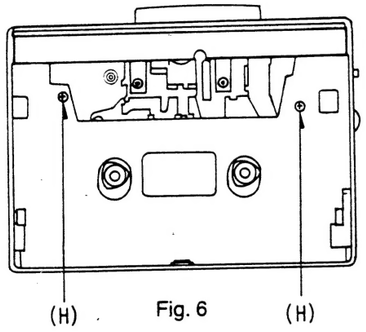


Fig. 6

●Removal of the Front Cabinet and Mechanism (Fig. 6).

1. Remove the deck screws (H) (2×6)mm×2.

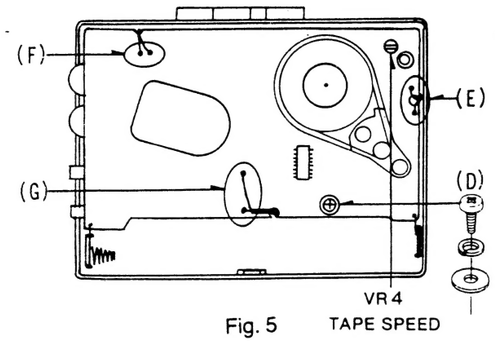


Fig. 5

●Removal of the Circuit Board (Fig. 5)

1. Remove the chassis screw (D) (2×16)mm×1.
2. Remove the solder (E), (F), (G) from flexible P.C.B.

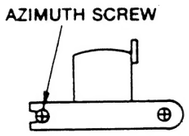


Fig. 7

■MEASUREMENT AND ADJUSTMENTS

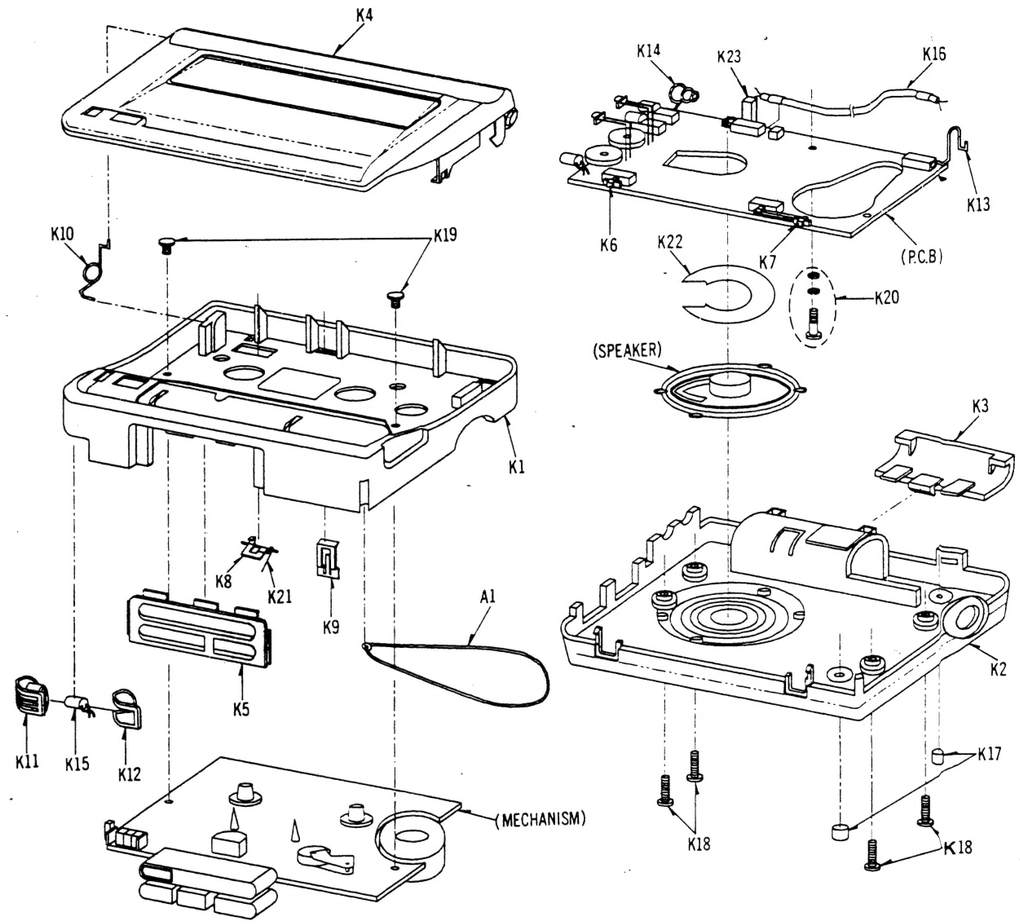
●ALGNMENT INSTRUCTION

READ CAREFULLY BEFORE ATTEMPTING ALIGNMENT	
1. Set volume control to maximum. 2. Set power source voltage to 3V DC. 3. Set TONE/SLE switch to OFF.	4. Set tape speed VR center point. 5. Make sure head are clean. 6. Make sure capstan and pinch roller are clean.

●MEASUREMENT AND ADJUSTMENTS

ITEM	INPUT	MEASUREMENT POINT	SPECIFICATION	ADJUSTMENT POINT	REMARKS
Head azimuth	QZZCSX (6.3kHz,–10dB)	Monitor jack (8Ω)	Maximum output	Head adjustment screw (See Fig. 7)	For tape playback
Tape speed	QZZCWAT (3kHz,–10dB)	Monitor jack (8Ω)	3000±50Hz	VR4 (Tape speed adjustment VR) (see Fig. 5)	For tape speed adjustment: (1)Play back test tape. (2)Adjust VR4 until a counter reading within the specified tolerances is obtained.

■CABINET PARTS LOCATION

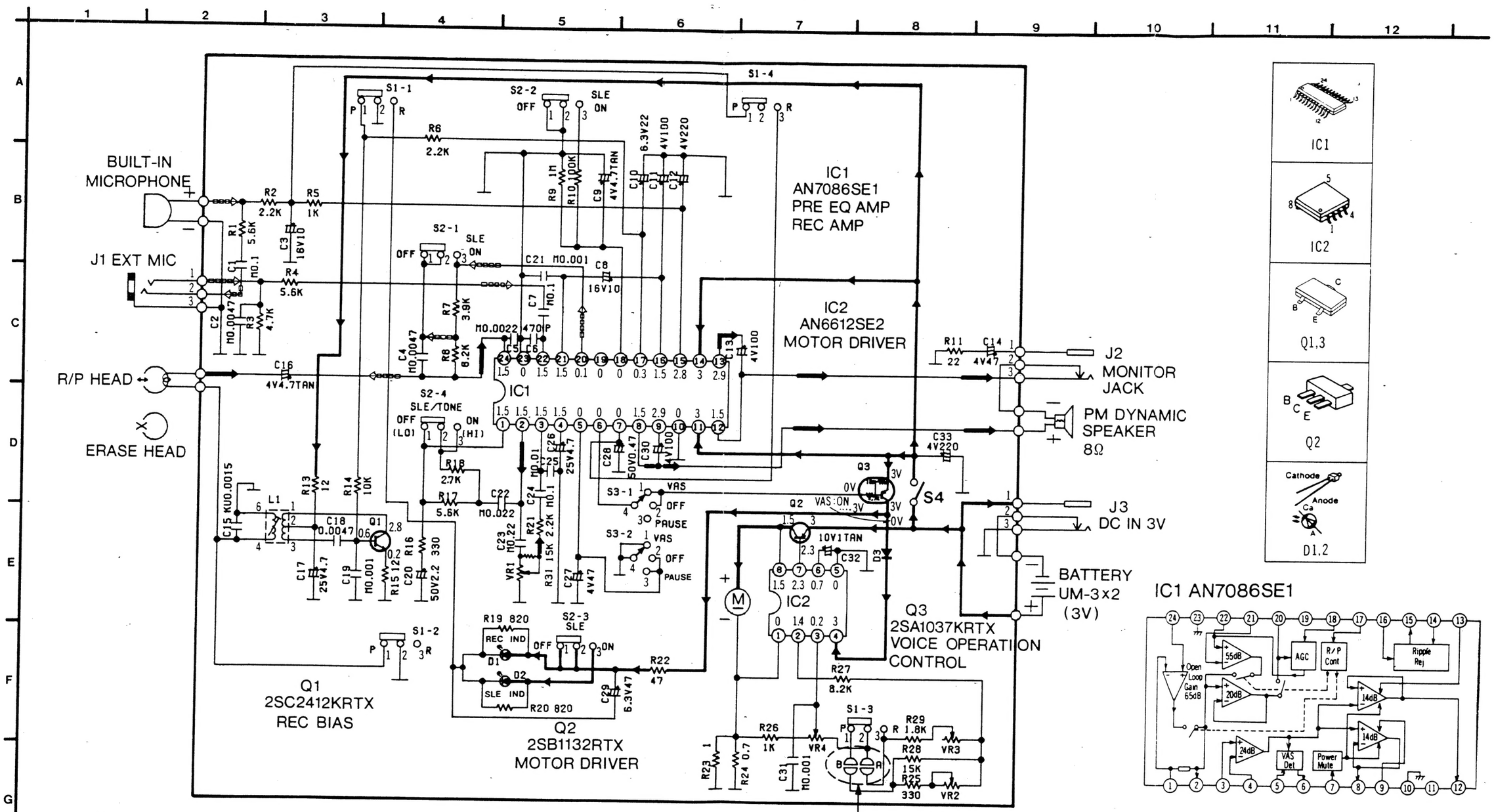


■REPLACEMENT PARTS LIST

Ⓣ Indicates parts that are supplied by TAMACO.

Ref. No.	Parts No.	Parts Name & Description
	CABINET PARTS	
K1 Ⓣ	**RFKKQL340PAK**	Front Cabinet Ass'y
K2 Ⓣ	**RKF275TYA**	Rear Cabinet
K3 Ⓣ	**RKK236TZA**	Battery Cover
K4 Ⓣ	**RFKLQL340EAK**	Cassette Cover Ass'y
K5 Ⓣ	**RKE213TZA**	Sky Cabinet
K6 Ⓣ	**RBD267TZA**	TON/SLE Knob
K7 Ⓣ	**RBD268TZA**	VAS/PAUSE Knob
K8 Ⓣ	**RHE206TZA**	Safety Lever (REC)
K9 Ⓣ	**RUS270TZA**	Tape Spring
K10 Ⓣ	**RUS269TZA**	Cassette Cover Spring
K11 Ⓣ	**RGX297TZA**	MIC Ornament
K12 Ⓣ	**RHG249TZA**	MIC Gum (BIG)
K13 Ⓣ	**RJC305TZA**	Battery Terminal (+)
K14 Ⓣ	**RJC306TZA**	Battery Terminal (–)
K15 Ⓣ	**ZP01L340P**	MIC ASS'Y
K16 Ⓣ	**ZD01L340P**	Head Wire Ass'y
K17 Ⓣ	**RHG250TZA**	Gum (LEG)
K18	**XTNR2+10CFZ**	Screw
K19 Ⓣ	**XTN17+4.5FFK**	Screw
K20 Ⓣ	**XYC2+JF16FN**	Screw (P.W.B. & Earth)
K21 Ⓣ	**RUS271TZA**	Safety Lever Spring
K22 Ⓣ	**RMX231TZA**	PVC Sheet
K23 Ⓣ	**RHG245TZA**	GUM
	ACCESSORY	
A1 Ⓣ	**RKH91ZA0**	Handle Strap
A2 Ⓣ	**RQTT0003-E**	Instruction Manual
	PACKING MATERIALS	
P1 Ⓣ	**RPNT0003**	Blister Front
P2 Ⓣ	**RPNT0004**	Blister Rear
P3 Ⓣ	**RPKT0003**	Decoration Box
P4 Ⓣ	**RPFT0001**	Polyethylene Cover

■SCHEMATIC DIAGRAM



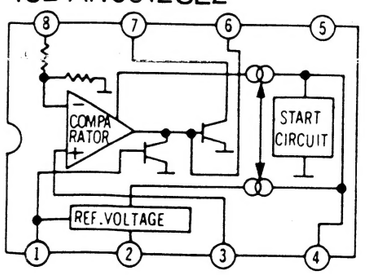
	REC	PLAY
A	CLOSE	OPEN
B	OPEN	CLOSE
IN PLAY STATE		

Notes:

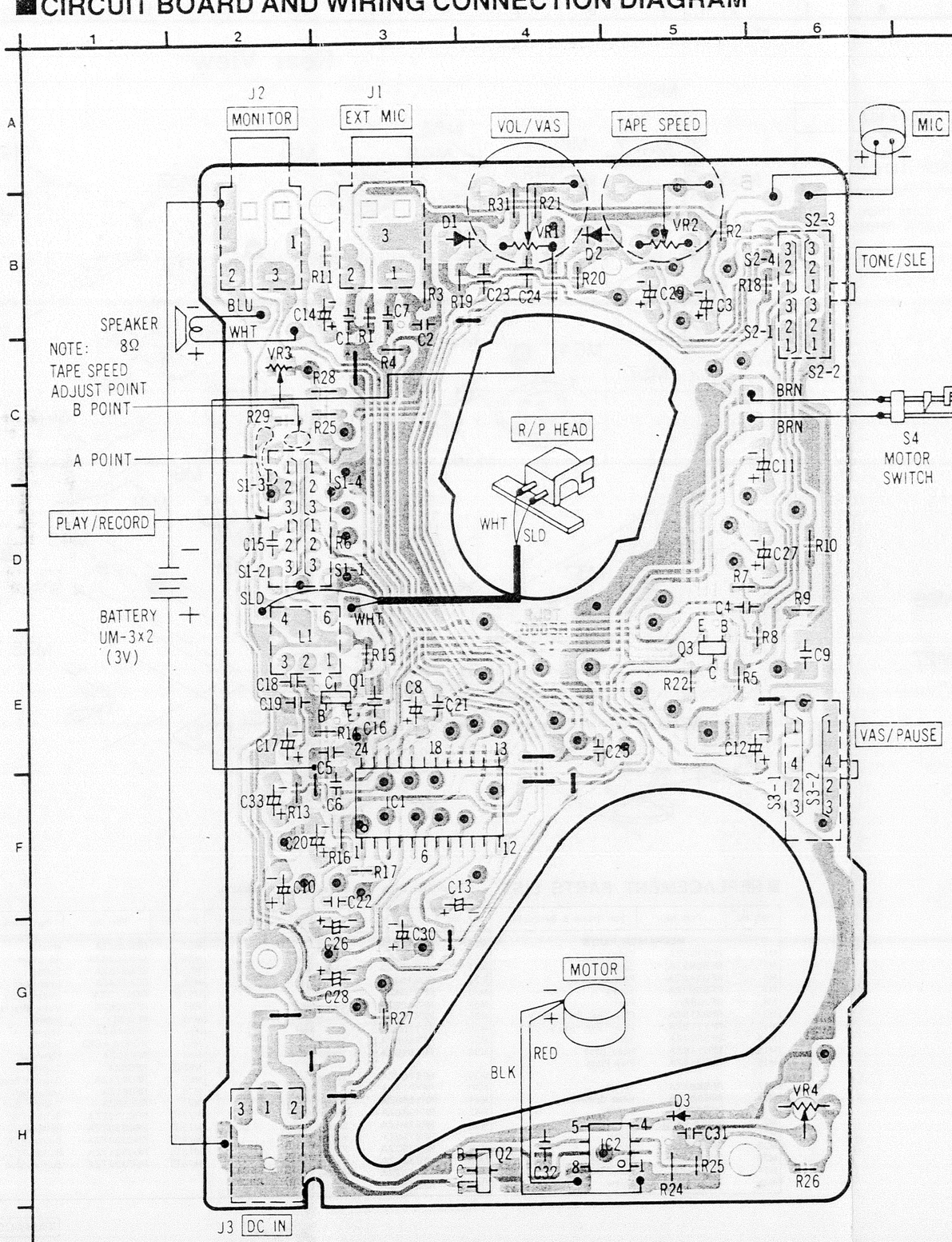
- S1-1～S1-4: Record/Playback select switch in "PLAYBACK" position. (1 /1···PLAYBACK,3···RECORD)
- S2-1～S2-3: SLE Switch in "OFF" position. (1···OFF,3···ON)
- S2-4: Tone Switch in "LOW" position. (1···Low, 2···High)
- S3-1, S3-2: VAS/PAUSE Switch in VAS position. (1···VAS, 2···PAUSE OFF, 3···PAUSE ON)
- S4: Motor Switch in "OFF" position.
- VR1: Volume Control VR.
- VR2: Play Tape Spead Control VR.
- VR3: Record 3kHz Speed Control VR.
- VR4: Play 3kHz Speed Control VR.
- All voltage values shown in circuitry are under no signal condition and playback mode with volume control at minimum position. For measurement, use VTVM.
- Volume minimum output·····100mA
  Volume maximum output·····300mA.
  (315Hz 0dB tape playback, QZZCFM)
- ▬▶ : Playback Signal Line.
  ▭▭▷ : Record Signal Line.
  ▬▶ : +B Line.

IC1 AN7086SE1

IC2 AN6612SE2



■CIRCUIT BOARD AND WIRING CONNECTION DIAGRAM



■REPLACEMENT PARTS LIST

T Indicates parts that are supplied by TAMACO.

Ref. No.	Parts No.	Parts Name & Description
INTEGRATED CIRCUIT, TRANSISTORS AND DIODES		
IC1 T	AN7086SE1	I.C. Power/PRE EQ Amp
IC2	AN6612SE2	I.C. Power Amp
Q1	2SC2412KRTX	Transistor
Q2	2SB1132RTX	Transistor
Q3 T	2SA1037KRTX	Transistor
D1 T	EL134HD	Diode (LED)
D2 T	EL134GD	Diode (LED)
D3	MA728TX	Diode
COIL		
L1 T	RLO8A3-T	I.F. Transformer
VARIABLE RESISTORS		
VR1 T	EVLHFAA06A14	Volume Control V.R.
VR2	EVLH01A19B53	Tape Speed Control V.R.
VR3 T	RRN3A01B13WA	Semi V.R.
VR4 T	EVNDXAA02B32	Semi V.R.

Ref. No.	Parts No.	Parts Name & Description
SPEAKER		
SP T	EAS45P301TA	Speaker
SWITCHES		
S1 T	RSH2D20YA-Q	Push Switch (R/P)
S2 T	RSS2D011-K	Slide Switch
S3	ESD11H230	Slide Switch
S4	RFA78ZA	Switch (Motor)
JACKS		
J1,2	RJJD3M6ZB-C	MIC/Monitor Jack
J3	RJJ4302-C	DC IN Jack

Ref. No.	Parts No.	Ref. No.	Parts No.
RESISTORS		**CAPACITORS**	
R1,4,17	ERJ6GEYJ562V	C1,7	ECUV1C104MBN
R2,6	ERJ6GEYJ222V	C2 T	ECUV1H473MBN
R3	ERJ6GEYJ472V	C3,8	ECEA1CKS100I
R5,26	ERJ6GEYJ102V	C4,18	ECUV1H472MBN
R7	ERJ6GEYJ392V	C5	ECUV1H222MBN
R8,27	ERJ6GEYJ822V	C6	ECUV1H471KBN
R9	ERJ6GEYJ105V	C9,16	RCST0GY475RE
R10	ERJ6GEYJ104V	C10 T	ECEA0JK220IV
R11	ERJ6GEYJ220V	C11,13,30	ECEA0GKS101I
R13,15	ERJ6GEYJ120V	C12,33	ECEA0GKS221I
R14	ERJ6GEYJ103V	C14 T	ECEA0GK470BI
R16,25	ERJ6GEYJ331V	C15	ECUV1H152KU
R18	ERJ6GEYJ272V	C17 T	ECEG1EKS4R7I
R19,20	ERJ6GEYJ821V	C19,21,31	ECUV1H102MBN
R21	ERJ6GEYJ222V	C20	ECEA1HKS2R2I
R22	ERJ6GEYJ470V	C22	ECUV1E223MBN
R23	ERJ6GEYJ1R0V	C23	ECUV1C224ZFM
R24 T	ERSL43JR70U	C24	ECUV1C104MBM
R28,31 T	ERSL43JR153V	C25	ECUV1E103MBN
R29	ERJ6GEYJ182V	C26	ECEA1EK4R7B
CHIP JUMPERS		C27,29 T	ECEG0GKS470
RJ1-3	ERJ8GEY0R00V	C32 T	RCST1AY105RE
RJ4-8	ERJ6GEY0R00V		

Notes:

1. The circuit shown in ( ) on the conductor indicates printed circuit on the back side of the printed circuit board.
2. The circuit shown in ( ) on the conductor indicates printed circuit on the front side of the printed circuit board.
3. The symbols (●) shown in the circuit board indicate connection points between conductors on the front side and back side of the circuit board.

• This circuit board diagram may be modified at any time with the development of new technology.

Notes:

■TAPE SPEED ADJUST METHOD

(1). Adjust VR2 at center position. (which has defeat position)
(2). Take B point short, A point open and push "PLAY" button. Then Adjust VR4, you'll get 3kHz output signal. (3kHz ± 50Hz)
(3). Take B point open, A point short and push "PLAY" button. Then Adjust VR3, you'll get 3kHz output signal. (3kHz ± 50Hz)
(4). If you Adjust VR4 again, please repeat (1). (2). (3). steps.
(5). After (1). (2). (3). (4). steps, please B point short, A point open, tape speed has adjusted completely.

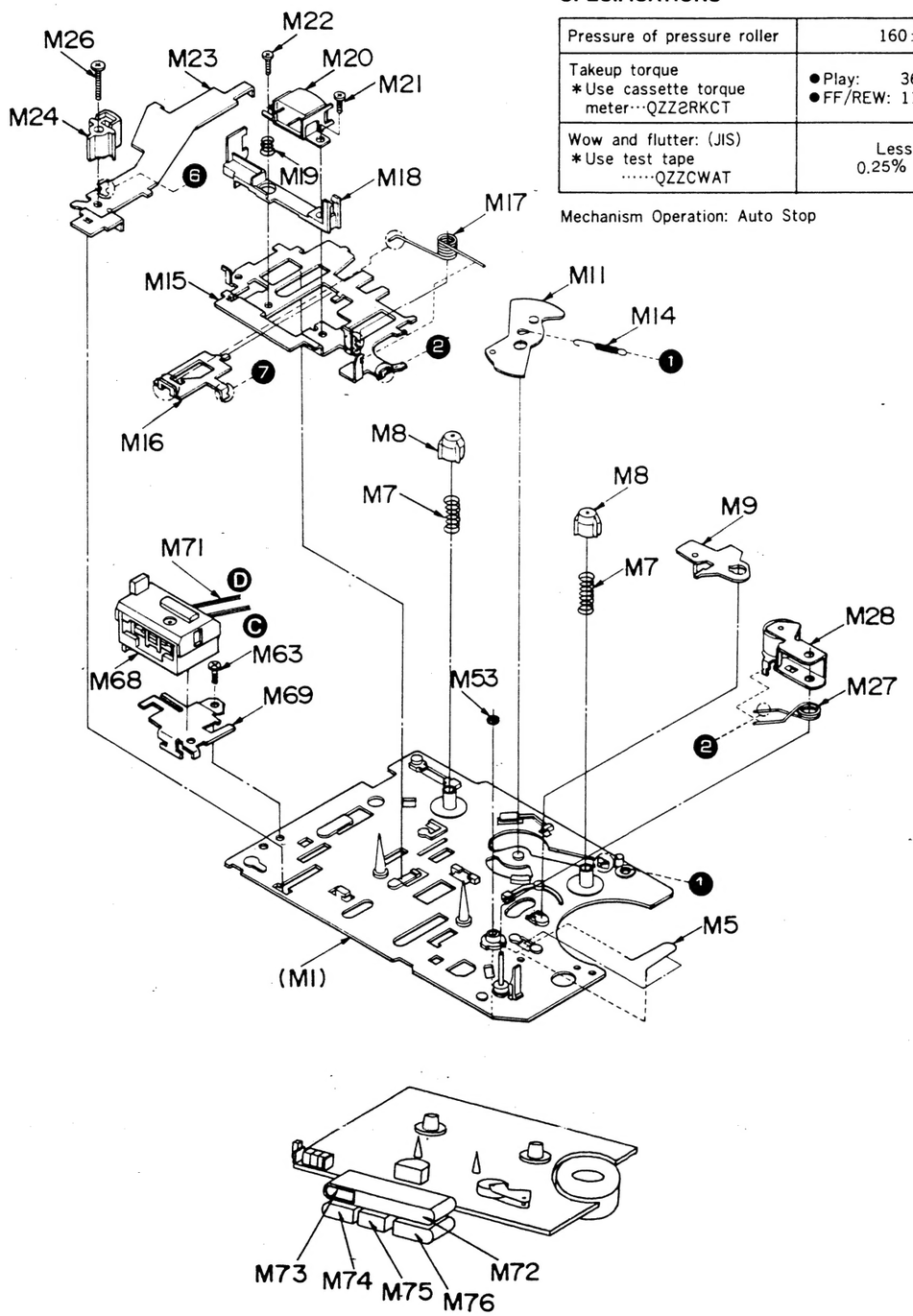
NOTES:

BLK	Black	PNK	Pink
BLU	Blue	RED	Red
BRN	Brown	SLD	Shield Wire
GRY	Gray	VLT	Violet
GRN	Green	WHT	White
L.BLU	Light Blue	YEL	Yellow
ORG	Orange		

●—●: Chip resistor
●—●: Chip jumper (0Ω)

■ MECHANISM PARTS LOCATION

Front View

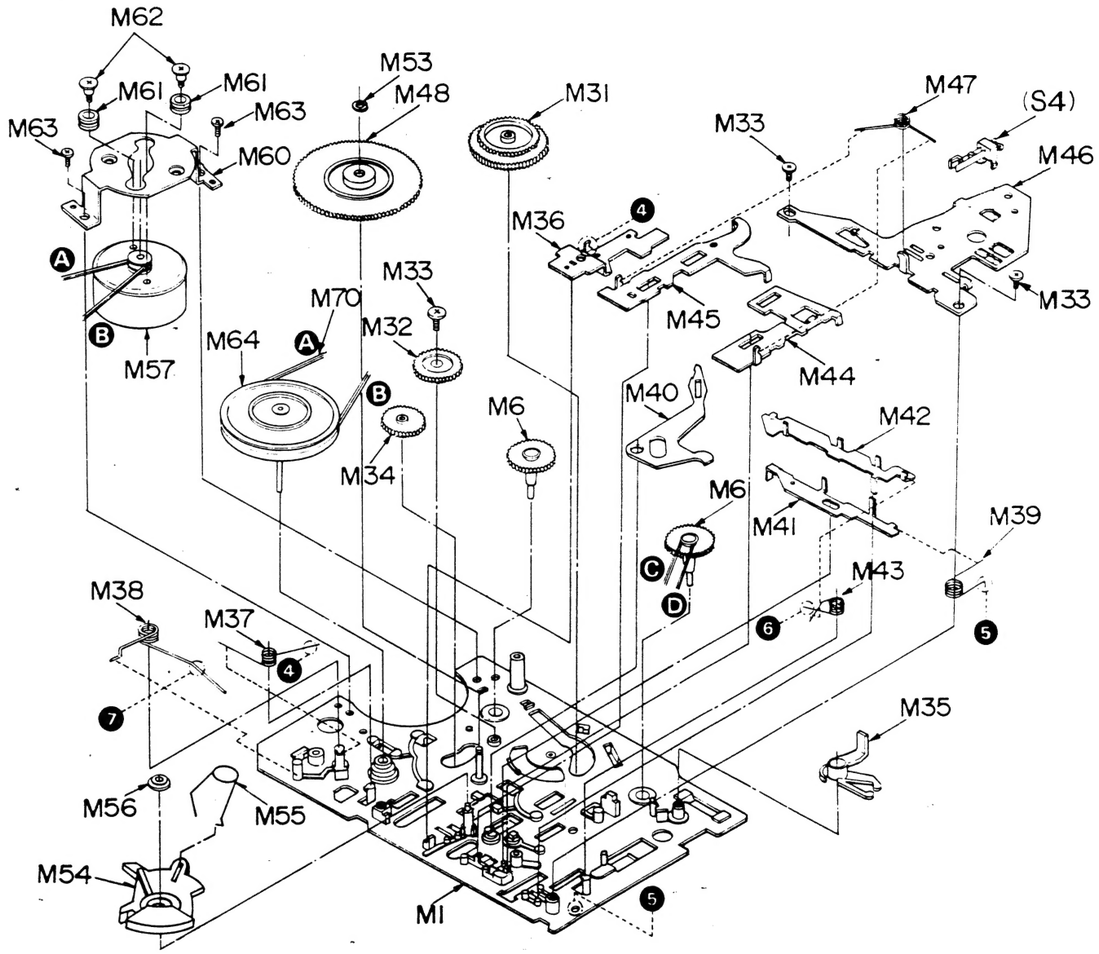


SPECIFICATIONS

Pressure of pressure roller	160±40g
Takeup torque *Use cassette torque meter···QZZ2RKCT	●Play: 36±14g·cm ●FF/REW: 110±50g·cm
Wow and flutter: (JIS) *Use test tape ·····QZZCWAT	Less than 0.25% (WRMS)

Mechanism Operation: Auto Stop

Rear View



■ REPLACEMENT PARTS LIST

Ⓣ Indicates parts that are supplied by TAMACO.

Ref. No.	Part No.	Part Name & Description
		MECHANISM PARTS
M1	RFU185ZA	Chassis Ass'y
M5	RFS692ZA	Spring
M6	RFG140ZA	Reel Gear
M7	RFS693ZA	Spring
M8	RFJ88ZA	Reel
M9	RFD318ZA	Play Gear Plate Ass'y
M11	RFY775ZA	Gear Lever Ass'y
M14	RFS694ZA	Spring
M15	RFU116ZA	Head Base
M16	RFD319ZA	Play Plate
M17	RFS695ZA	Spring
M18	RFE362ZA	Head Guide
M19	RFS696ZA	Spring
M20Ⓣ	RJH0C03MZAB	R/P Head
M21	RFE363ZA	Screw
M22	RFE364ZA	Screw
M23	RFY776ZA	Rec Lever
M24	RFH17ZA	Earse Head Ass'y
M26	XQN2+10F	Screw
M27	RFS697ZA	Spring
M28	RFR43ZA	Pinch Roller Ass'y
M31	RFG101ZA	Center Gear
M32	RFG102ZA	FF Gear
M33	RFE304Z	Screw
M34	RFG103ZA	Play Gear
M35	RFY777ZA	Rec Arm
M36	RFY959ZA	Stop Lever
M37	RFS698ZA	Spring
M38	RFS699ZA	Spring
M39	RFS700ZA	Spring
M40	RFY779ZA	F, R Lever
M41	RFY958ZA	Switch Lever
M42	RFY960ZA	Lock Lever
M43	RFS784ZA	Spring
M44	RFY782ZA	REW Lever
M45	RFY783ZA	FF Lever
M46	RFE367ZA	Lever Guide
M47	RFS702ZA	Spring
M48Ⓣ	RFG165ZA	Friction Gear Ass'y
M53	RFN202ZA	Washer
M54Ⓣ	RFY1038ZA	AS Lever
M55Ⓣ	RFS948ZA	Spring
M56	RFX154ZA	Gear Bush
M57Ⓣ	RFM113ZA	Motor Ass'y
M60	RFD320ZA	Motor Bracket
M61	RFI48ZA	Rubber
M62	RFE366ZA	Screw
M63	XQN16+CF3	Screw
M64	RFF50ZA	Flywheel
M68Ⓣ	RFC5ZA	Counter
M69	RFD321ZA	Counter Bracket
M70	RFB81ZA	Motor Belt
M71	RFB82ZA	Counter Belt
M72Ⓣ	RBC329TZA	Button,Play
M73Ⓣ	RBC333TZA	Button,REC
M74Ⓣ	RBC330TZA	Button,REW
M75Ⓣ	RBC331TZA	Button,FF
M76Ⓣ	RBC332TZA	Button,Stop

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